

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:	HARVILLE, et al.	Patent Application
Application No.:	10/698,196	Group Art Unit: 2157
Filed:	October 30, 2003	Examiner: Burgess, Barbara N.
For:	SERVICE MANAGEMENT USING MULTIPLE SERVICE LOCATION MANAGERS	

APPEAL BRIEF

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I. Real Party in Interest

The assignee of the present invention is Hewlett-Packard Development Company,
L.P.

II. Related Appeals and Interferences

There are no related appeals or interferences known to the Appellants.

III. Status of Claims

Claims 1 and 38-76 are rejected. Claims 2-37 are cancelled. This Appeal involves Claims 1 and 38-76.

IV. Status of Amendments

All proposed amendments have been entered. An amendment subsequent to the Final Action has not been filed.

V. Summary of Claimed Subject Matter-

Independent Claims 1 and 56 of the present application pertain to embodiments associated with managing a streaming media service and a system for providing streaming content, respectively.

As recited in Claim 1, “[a] method for managing a streaming media service” is described. This embodiment is depicted at least in Fig. 3. “Figure 3 is a flowchart 300 of operations performed in accordance with an embodiment of the present invention for managing a streaming media service.” (page 48, lines 1-2). “At operation 302, a request for a streaming media service is received from a client wherein the streaming media service includes a media service component” (page 48, lines 17-19). “At operation 304 of Figure 3, a service location manager to which to provide the request is selected from a plurality of service location managers” (page 48, lines 22-23). “At operation 306, a service provider to which to assign the media service component is selected from a plurality of service providers of a network” (page 49, lines 2-3). As described in the instant specification, with reference at least to Fig. 1A, “[s]ervice location managers 120 and 122 function to select a service provider (e.g., service provider 130, 132, 134 or 136) that can perform a requested type of service on an item of content to produce a service result that is provided to a client device 150. One or more service providers are known to each service location manager, and each service location manager selects among the service providers known to it in order to assign a service provider to perform a requested service” (page 15, lines 4-10). “At operation 308 of Figure 3, the service provider selected to perform the media service component is informed of its assignment, therein enabling the requested streaming media service to be performed on streaming media” (page 49, lines 7-9).

As recited in Claim 56, “[a] system for providing streaming content to a client device” is described. This embodiment is depicted at least in Figures 1A, 1B and 2. “Figure 1A is a block diagram of a system 100 for servicing content from a content source 110 and for delivering the service result content to a client device 150 in accordance with an embodiment of the present invention” (page 7, lines 1-3). “[S]ystem 100 includes a plurality of service location managers exemplified by service location managers 120 and 122, a plurality of service portals exemplified by service portals 140 and 142, and a plurality of service providers exemplified by service providers 130, 132, 134 and 136” (page 10, lines 1-4). “Service providers 130, 132, 134 and 136 each function to provide one or more types of services” (page 14, lines 13-15). Moreover, the specification recites that “[p]ortals 140 and 142 can each be well-published portal sites that can each serve as the first point of contact between client device 150 and system 100” (page 11, lines 13-14). “At the beginning of a session, client device 150 sends message 1 to a portal (e.g., 140)” (page 25, lines 6-8). “After receiving message 1, portal 140 selects a service location manager (e.g., 120 or 122) to which to send message 2” (page 26, lines 10-11). “[S]ervice location manager 120 selects from among the service providers (e.g., 130 and 132) that it supervises which one is to perform the service identified from message 2” (page 31, lines 17-19). “Within Figure 1A, in one embodiment, the addition of message A from service location manager 120 to the selected service provider (e.g., 130) is shown. With reference to the present example, message A can be sent from service location manager 120 to service provider 130 at any time after message 2 and before message 5” (page 39, lines 16-20). “[I]n addition to identifying the item of content and perhaps the content source, message A can also include information enabling service provider 130 to establish communication with client device 150. In other words,

instead of having client device 150 initiate the transfer of communication from portal 140 to service provider 130, the transfer of communication can be initiated by service provider 130 in a manner that can still be seamless and transparent to a user of client device 150” (page 40, lines 13-19).

VI. Grounds of Rejection to Be Reviewed on Appeal

1. Claims 1 and 38-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,981,029 by Menditto et al., hereinafter referred to as “Menditto,” in view of U.S. Patent Application Publication No. 2003/0021282 by Hospodor.

VII. Argument

1. Whether Claims 1 and 38-76 are unpatentable under 35 U.S.C. § 103(a) by Menditto in view of Hospodor.

Claims 1 and 38-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Menditto in view of Hospodor. Appellants have reviewed Menditto and Hospodor and respectfully submit that the embodiments of the present invention as recited in Claims 1 and 38-76 are patentable over Menditto in view of Hospodor for at least the following rationale.

“As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries” including “[a]scertaining the differences between the claimed invention and the prior art” (MPEP 2141(II)). “In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious” (emphasis in original; MPEP 2141.02(I)). Appellants note that “[t]he prior art reference (or references when combined) need not teach or suggest all the claim limitations, however, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art” (emphasis added; MPEP 2141(III)).

Appellants respectfully submit that “[i]t is improper to combine references where the references teach away from their combination” (emphasis added; MPEP 2145(X)(D)(2); *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983)). Appellants respectfully note that “[a] prior art reference must be considered in its entirety, i.e., as a whole, including

portions that would lead away from the claimed invention” (emphasis in original; MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)). Moreover, “if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious” (emphasis added) (MPEP § 2143.01; *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). Appellants respectfully note that “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention” (emphasis in original; MPEP 2141.02(VI); *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)). Appellants respectfully submit that there is no motivation to combine the teachings of Menditto and Hospodor, because the suggested combination would change the principle of operation of Menditto and Hospodor.

Claims 1 and 38-55

Independent Claim 1 recites (emphasis added):

A method for managing a streaming media service, said method comprising:
receiving a request for a streaming media service from a client, said streaming media service comprising a media service component;
selecting a service location manager to which to provide said request from a plurality of service location managers;
selecting a service provider to which to assign said media service component from a plurality of service providers of a network, wherein said selecting said service provider is performed by said service location manager;
and
informing said service provider of said assignment to perform said media service component, causing said service provider to prepare to perform said streaming media service on streaming media.

Claims 38-55 that depend from independent Claim 1 also include this embodiment.

First, Appellants respectfully submit that Menditto does not show or suggest the claimed embodiment. As understood by the Appellants, Menditto appears to describe a content gateway that “intercepts request[s] that are candidates for content processing” (col. 3, lines 11-12). In particular, Appellants respectfully submit that a content gateway of Menditto is not selected, and thus Menditto does not teach, describe or suggest “selecting a service location manager to which to provide said request from a plurality of service location managers” (emphasis added) as claimed.

With reference to Fig. 1, Menditto recites “[c]ontent gateway 18 intercepts request [sic] that are candidates for content processing, classifies requests by examining the content of the request, makes routing decisions based on the content of the request, and determines an appropriate content provider 14 server location to satisfy the request including location of servers in the best proximity to the client terminal 16” (emphasis added; col. 3, lines 11-17).

Fig. 2 of Menditto “is a flow chart illustrating steps in the process of routing information in information service provider 12” (col. 3, lines 38-39). For instance, “[i]f the domain name is subscribed for content gateway services, the IP address of content gateway 18 is returned. Subsequently, client terminal 16 makes a connection with content gateway 18 and sends the request accordingly. Content gateway 18 intercepts the request and parses the uniform resource locator and the HTTP headers” (emphasis added; col. 3, lines 45-50).

In particular, Appellants respectfully submit that Menditto discloses that a content gateway is associated with an IP address, and that there is no selection of a content gateway

from a plurality of content gateways. Therefore, Appellants respectfully submit that Menditto does not teach, describe or suggest “selecting a service location manager to which to provide said request from a plurality of service location managers” (emphasis added) as claimed.

Moreover, Appellants respectfully submit that Hospodor does not overcome this shortcoming. Appellants understand Hospodor to disclose a system and method for providing streaming media data. In particular, Hospodor recites “a streaming request 107 is passed to a stream director node 205 via an edge router 201 and a high-speed switch” (emphasis added; [0026]). Appellants respectfully submit that Hospodor does not teach, describe or suggest that a stream director node 205 is selected. Therefore, Appellants respectfully submit that Hospodor also does not teach, describe or suggest “selecting a service location manager to which to provide said request from a plurality of service location managers” (emphasis added) as claimed.

Claims 56-76

Independent Claim 56 recites (emphasis added):

A system for providing streaming content to a client device, said system comprising:
a plurality of service location managers;
a plurality of service providers, each service provider capable of performing a service on an item of streaming input content to produce said streaming content; and
a portal providing a first point of contact for said client device, said portal for receiving from said client device a request for performance of said service on an item of streaming input content, said portal for selecting a service location manager to which to provide said request from said plurality of service location managers, said service location manager for receiving said request from said portal and for selecting a service provider from said plurality of service providers and informing said service provider of said

assignment to perform said service on said streaming input content to produce said streaming content

Claims 57-76 that depend from independent Claim 56 also include this embodiment.

Appellants respectfully agree that Menditto does not explicitly disclose “a portal providing a first point of contact for said client device, said portal for receiving from said client device a request for performance of said service on an item of streaming input content, said portal for selecting a service location manager to which to provide said request from said plurality of service location managers” as claimed. Moreover, Appellants respectfully submit that Hospodor also does not disclose this embodiment.

Appellants understand the Final Office Action to assert that Hospodor discloses “a portal providing a first point of contact for said client device, said portal for receiving from said client device a request for performance of said service on an item of streaming input content, said portal for selecting a service location manager to which to provide said request from said plurality of service location managers” (emphasis added) as claimed.

As presented above, Appellants understand Hospodor to disclose a system and method for providing streaming media data. In particular, Hospodor recites “a streaming request 107 is passed to a stream director node 205 via an edge router 201 and a high-speed switch” (emphasis added; [0026]). Appellants respectfully submit that edge router 201 does not select a stream director node 205. In contrast, Hospodor discloses that “a streaming request 107 is passed to a stream director node 205 via an edge router 201” (emphasis added; [0026]).

In particular, Appellants respectfully submit that Hospodor does not teach, describe or suggest that a stream director node is selected. Therefore, Appellants respectfully submit that Hospodor does not teach, describe or suggest “a portal providing a first point of contact for said client device, said portal for receiving from said client device a request for performance of said service on an item of streaming input content, said portal for selecting a service location manager to which to provide said request from said plurality of service location managers” (emphasis added) as claimed.

Moreover, Appellants respectfully submit that Hospodor does not disclose “a portal providing a first point of contact for said client device” (emphasis added) as claimed. As presented above, Hospodor recites “a streaming request 107 is passed to a stream director node 205 via an edge router 201 and a high-speed switch” (emphasis added; [0026]). Appellants respectfully submit that edge router 201 would be a first point of contact for a stream request from a client device. Therefore, Appellants respectfully submit that Hospodor does not disclose “a portal providing a first point of contact for said client device” (emphasis added) as claimed. Moreover, by disclosing that the edge router 201 is a first point of contact, Hospodor teaches away from “a portal providing a first point of contact for said client device” (emphasis added) as claimed.

Claims 1 and 38-76

Appellants respectfully submit that there is no motivation to combine the teachings of Menditto and Hospodor, because the suggested combination would change the principle of operation of Menditto and Hospodor. Appellants respectfully submit that “[i]t is improper to

combine references where the references teach away from their combination” (emphasis added; MPEP 2145(X)(D)(2); *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983)). Moreover, “if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious” (emphasis added) (MPEP § 2143.01; *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)).

Appellants respectfully submit that the suggested combination of Menditto and Hospodor change the principle of operation of Menditto and Hospodor. In particular, Appellants submit that the suggested combination would require a substantial reconstruction and redesign of the elements shown in Menditto because Menditto contains a server which delivers content, whereas Hospodor specifically does not employ a server to service streaming media requests. For example, Appellants understand Menditto’s intended purpose is to process a request for information in a network, where the best server to deliver information is determined and used. “The objective of content gateway 18 is to locate the “best” server and network connection for delivering data to client terminal 16, i.e., the server that will deliver the content the fastest with the required security protection” (emphasis added; col. 3, lines 51-55).

In contrast, Appellants understand Hospodor’s intended purpose is to service streaming media requests from a client. More particularly, Hospodor recites that “there are no servers through which the streaming data 108 must pass to reach the ultimate requester. Therefore, a QoS constraint can be imposed on the system...” ([0028]).

Menditto contains a server which delivers content the fastest with the required security protection. This server is necessary for Menditto's operations. Whereas, Hospodor specifically states that no server is used in order that its intended function be accomplished. Combining Menditto and Hospodor changes the principle of operation for both prior art references. Therefore, because the proposed combination would change the principle of operation of the Menditto and Hospodor, then the teachings of Menditto and Hospodor are not sufficient to render the claims *prima facie* obvious.

Appellants note the Response to Arguments on pages 23-24 of the Final Office Action. In particular, Appellants note the indication that the term "server" is not in the claim language. Appellants respectfully note that the argument that there is no motivation to combine Menditto and Hospodor as asserted in the Final Office Action is an argument that rejection does not satisfy a *prima facie* case of obviousness, and does not address the claims of the instant application.

In view of the combination of Menditto in view of Hospodor, not showing or suggesting all of the limitations of independent Claims 1 and 56, not satisfying the requirements of a *prima facie* case of obviousness, Appellants respectfully submit that independent Claims 1 and 56 overcome the rejection under 35 U.S.C. § 103(a), and that these claims are thus in a condition for allowance. Appellants respectfully submit the combination of Menditto in view of Hospodor also does not teach or suggest the additional claimed features of the present invention as recited in Claims 38-55 that depend from independent Claim 1 and Claims 57-76 that depend from independent Claim 56. Therefore, Appellants

respectfully submit that Claims 38-55 and 57-76 also overcome the rejection under 35 U.S.C. § 103(a), and are in a condition for allowance as being dependent on an allowable base claim.

Conclusion

Appellants believe that pending Claims 1 and 38-76 are patentable over Menditto in view of Hospodor. In summary, Appellants respectfully submit that the Examiner's rejections of the Claims are improper as the rejection of Claims 1 and 38-76 does not satisfy the requirements of a *prima facie* case of obviousness. Accordingly, Appellants respectfully submit that the rejection of Claims 1 38-76 under 35 U.S.C. §103(a) is improper and should be reversed.

Appellant respectfully requests that the rejection of Claims 1 and 38-76 be reversed. The Appellants wish to encourage the Examiner or a member of the Board of Patent Appeals to telephone the Appellant's undersigned representative if it is felt that a telephone conference could expedite prosecution.

Respectfully submitted,
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Dated: 10/21/2008

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VIII. Appendix - Clean Copy of Claims on Appeal

1. A method for managing a streaming media service, said method comprising:

receiving a request for a streaming media service from a client, said streaming media service comprising a media service component;

selecting a service location manager to which to provide said request from a plurality of service location managers;

selecting a service provider to which to assign said media service component from a plurality of service providers of a network, wherein said selecting said service provider is performed by said service location manager; and

informing said service provider of said assignment to perform said media service component, causing said service provider to prepare to perform said streaming media service on streaming media.

38. The method as described in Claim 1, wherein said selecting said service location manager comprises:

maintaining a record comprising identifying information of a service location manager among said plurality of service location managers; and

selecting said service location manager according to said record.

39. The method as described in Claim 1, wherein said selecting said service location manager comprises:

maintaining a record comprising a prioritized list of at least one service location manager among said plurality of service location managers; and

selecting said service location manager according to the order of priority of said list of said record.

40. The method as described in Claim 1, wherein said selecting said service location manager comprises:

maintaining a record comprising identifying information for a set of service location managers among said plurality of service location managers; and

selecting said service location manager randomly from said record.

41. The method as described in Claim 1, wherein said selecting said service location manager comprises:

maintaining a record comprising identifying information for a set of service location managers among said plurality of service location managers; and

selecting said service location manager in a round robin manner from said record.

42. The method as described in Claim 1, wherein said selecting said service location manager comprises a comparison of processing loads of at least two service location managers among said plurality of service location managers.

43. The method as described in Claim 1, wherein said selecting said service location manager comprises a comparison of available resources of a first set of service providers supervised by said service location manager and available resources of a second set of service providers supervised by a second service location manager.

44. The method as described in Claim 1, wherein said selecting said service location manager is based on an estimate of a network communication condition between two entities connected by the network.

45. The method as described in Claim 44, wherein said estimate of said network communication condition is associated with said client.

46. The method as described in Claim 44, wherein said estimate of said network communication condition is associated with a content source of said streaming media.

47. The method as described in Claim 1, wherein said selecting said service location manager is based on one of the group consisting of: pending service request queue length of a service location manager, expected latency of a service location manager for assigning said service request, and available network communication bandwidth of a service location manager.

48. The method as described in Claim 1, further comprising:
notifying a second service location manager among said plurality of service location managers of the assignment of said service provider to perform said media service component.

49. The method as described in Claim 1, further comprising:
notifying a second service location manager among said plurality of service location managers of the completion of performance of said media service component.

50. The method as described in Claim 1, further comprising:
a second service location manager assuming the role of said service location manager if said service location manager is determined to be non-responsive.

51. The method as described in Claim 1, further comprising:
maintaining a record comprising identifying information of a set of service location managers among said plurality of service location managers, each service location manager of said set of service location managers supervising said service provider; and
notifying said set of service location managers according to said record of said assignment of said service provider to perform said media service component.

52. The method as described in Claim 51, wherein said maintaining and said notifying is performed by said service provider or said service location manager.

53. The method as described in Claim 1, further comprising:
maintaining a record comprising identifying information of a set of service location managers among said plurality of service location managers, each service location manager of said set of service location managers supervising said service provider; and
notifying said set of service location managers according to said record of the completion of performance of said media service component by said service provider.

54. The method as described in Claim 53, wherein said maintaining and said notifying is performed by said service provider or said service location manager.

55. The method as described in Claim 1, wherein said service provider is supervised by more than one service location manager among said plurality of service location managers.

56. A system for providing streaming content to a client device, said system comprising:

a plurality of service location managers;

a plurality of service providers, each service provider capable of performing a service on an item of streaming input content to produce said streaming content; and

a portal providing a first point of contact for said client device, said portal for receiving from said client device a request for performance of said service on an item of streaming input content, said portal for selecting a service location manager to which to provide said request from said plurality of service location managers, said service location manager for receiving said request from said portal and for selecting a service provider from said plurality of service providers and informing said service provider of said assignment to perform said service on said streaming input content to produce said streaming content.

57. The system of Claim 56, wherein said portal maintains a record comprising a prioritized listing of at least one service location manager among said plurality of service location managers and selects said service location manager in order of priority according to said prioritized listing.

58. The system of Claim 56, wherein said portal maintains a record comprising identifying information of a set of service location managers among said plurality of service location managers and selects said service location manager in a round robin manner from said record.

59. The system of Claim 56, wherein said portal selects said service location manager by comparing processing loads of at least two service location managers among said plurality of service location managers.

60. The system of Claim 56, wherein said portal selects said service location manager by comparing available resources of a first set of service providers supervised by said service location manager and available resources of a second set of service providers supervised by a second service location manager.

61. The system of Claim 56, wherein said portal selects said service location manager based on an estimate of a network communication condition between two entities connected by the network.

62. The system of Claim 56, wherein said service location manager notifies a second service location manager among said plurality of service location managers of said assignment of said service provider to perform said service.

63. The system of Claim 56, wherein said portal determines if said service location manager of said plurality of service location managers is non-responsive.

64. The system of Claim 63, wherein said portal activates a second service location manager of said plurality of service location managers to assume the role of said service location manager, provided said portal determines said service location manager to be non-responsive.

65. The system of Claim 56, wherein said service provider is supervised by more than one service location manager of said plurality of service location managers.

66. The system of Claim 65, wherein said service provider maintains a record comprising identifying information of service location managers that supervise it.

67. The system of Claim 66, wherein said service provider notifies said service location managers that supervise it of said assignment to perform said service.

68. The system of Claim 66, wherein said service provider notifies said service location managers that supervise it of completion of performance of said service by said service provider.

69. The system of Claim 65, wherein said service location manager maintains a record comprising identifying information of a second service location manager that also supervises said service provider.

70. The system of Claim 69, wherein said service location manager notifies said second service location manager of said assignment of said service provider to perform said service.

71. The system of Claim 69, wherein said service location manager notifies said second service location manager of completion of performance of said service by said service provider.

72. The system of Claim 56, wherein said service provider is supervised by a first service location manager, and said first service location manager transfers supervision of said service provider to a second service location manager.

73. The system of Claim 72, wherein said transfer is based on a computational load of said first service location manager.

74. The system of Claim 72, wherein said transfer is based on availability of resources of a service provider supervised by said second service location manager.

75. The system of Claim 56, wherein said service provider is selected to be supervised by said service location manager based on a network communication condition between said service location manager and said service provider.

76. The system of Claim 56, wherein said plurality of service location managers comprises a master service location manager that monitors the status of other service location managers of said plurality of service location managers.

IX. Evidence Appendix

No evidence is herein appended.

X. Related Proceedings Appendix

No related proceedings.